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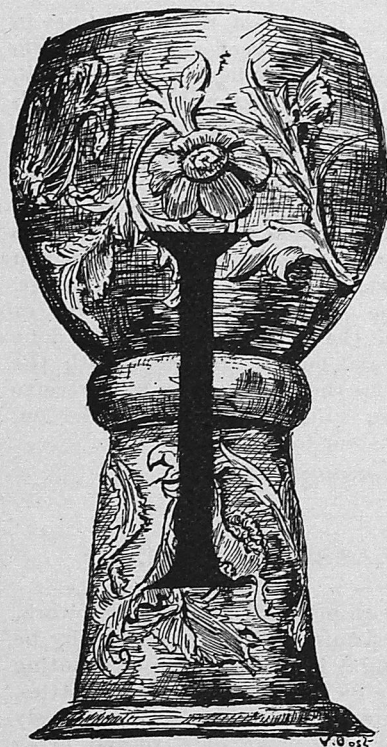
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THE DECORATOR AND FURNISHER.

BRASS HAMMERING AND EMBOSING SHEET METAL.

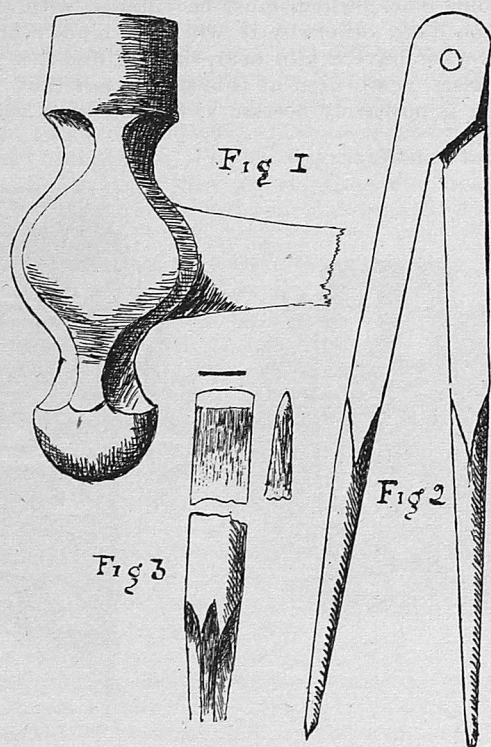
No. 1 of a Series of Articles by a Practical Worker.



English Casket, Eighteenth Century.

It is absolutely necessary in sheet metal work that a tyro should thoroughly understand the nature of the material he will work in, and the amount of hammering a certain gauge metal will stand. I have often-times noticed, with ladies especially, when they have been embossing a piece of metal, they have pounded so much in one place that the tool has gone right through. Had they known the nature of the material they were working this could never have happened. There are many who wish to learn metal work, and go to a teacher with the idea that they can do repoussé work in a few lessons. The

teacher knows that, and therefore, for fear of losing a pupil, starts them at once on something which he knows very well they cannot possibly do, trusting to his own hands to put the work through. All this is brought about through some teacher professing to teach repoussé work in six lessons, and their method is simply hammering with a punch the background of the design into a plank of wood or lead, and by expansion the pattern is raised up in formless lumps. Now it is plainly visible this is not repoussé work. The simple definition of the word means "to push the metal first on one side and then on the other until it is raised in bold relief," in short, raising and modeling the metal. I have frequently been asked, "To what use can we put the work?" "What can we make?" Is there any sale for it? Yes, there is always a sale by beautifying the useful, and there is a growing demand for hand metal work, and only as recently as Christmas I had as much as I could do to fill orders for my original designs of fruit bowls, sugar bowls, card receivers, saltcellars, shoe slips, salvers, menu holders, crumb trays and scoops, candlesticks, handkerchief boxes and book marks, and there is also a great demand for these articles and others of a like character at bazars and fancy fairs.

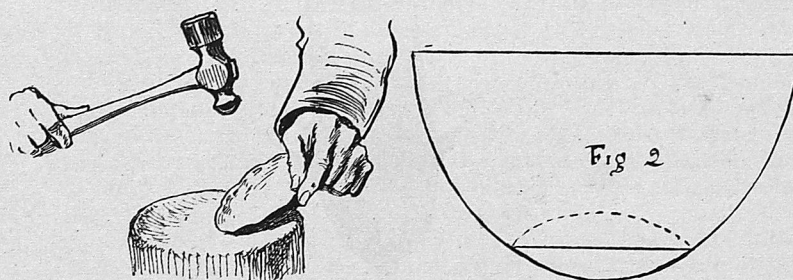


TOOLS.

Fig. 1—Raising Hammer. Fig. 2—Compasses. Fig. 3—Tracer or Bordering Tool.

For those who hope to imitate the old masters of this charming art, or even to produce something artistic, they must know how to hammer and lay out different shapes, for these shapes made ever so roughly have an artistic value of their own that can never be gotten in open or stamped work, no matter how beautiful it may be, it is not a work of art, as it bears no direct trace of human expression or touch. Now before touching on

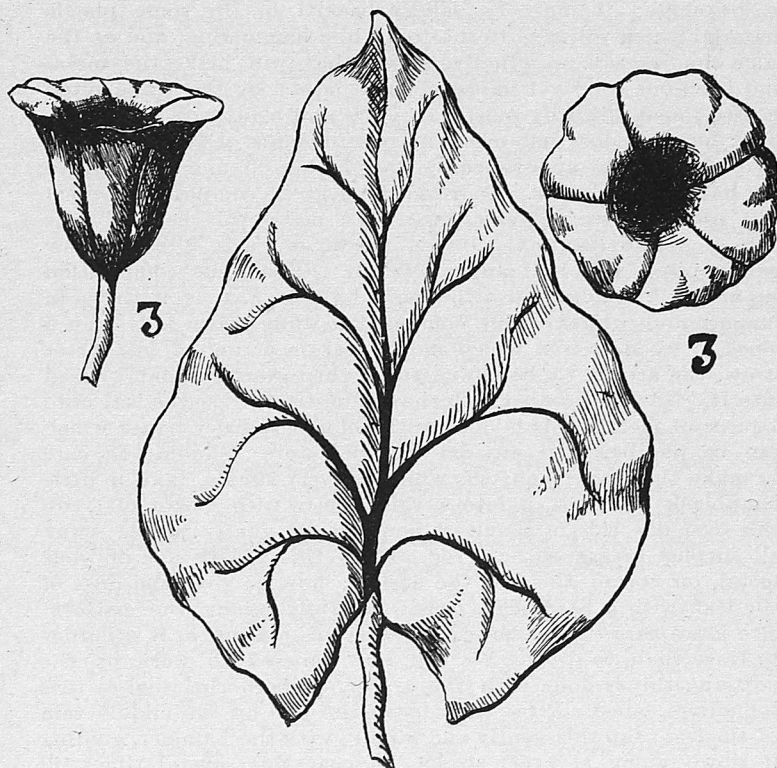
repoussé work, we will lay out and hammer a few shapes that we may understand the nature of the material we have to work with. First we will purchase the necessary tools. A half pound ball end hammer (see tools) the same as a machinist would use, a pair of tinsmith's shears, a pair of steel dividers, a few pounds of 20 gauge best sheet brass, and a six inch half round smooth file. These can be purchased at any hardware dealers. Next is a block of wood about twenty inches high and six or eight inches thick, it can be either round or square, the former is best; yet, for those who wish, it need only be a small block fastened on the bench or table. Preferably it should stand on the floor. This modeling stake as it is called should be hollowed out like a tea saucer at one end, to receive the work while it is being hammered into form (see sketch). Now that we have these tools, we will lay out our first form—let it be that of a finger bowl, which with a little practice the amateur will find very easy to shape. Take your sheet of metal and lay it on the bench, and with a center punch or large French nail, which will answer our purpose as well, make a slight indenta-



tion in your metal. Now open your compasses to three inches and scribe a circle, cut this out with the shears; this you may find rather difficult to do at first, yet it will be quite easy after a little while. Now this is cut out take your half-round file and file off all sharp edges which are liable to cut your fingers. This being ready we sit down to the stake, or, should it be a lady, stand up to the bench block, taking the shape of metal in the right hand between the thumb and forefinger, hold it at a slight angle in the hollow of the block (see sketch). Now, with the hammer in the right hand, strike lightly with the ball end around the outside edge of the circle of metal, moving the metal slightly after each blow so that you strike in the center of the block every time, following each blow almost on top of the other. Repeat this hammering circle after circle, joining each circle with the last till you reach the center. Should the work buckle or frill, gently hammer the buckles down wherever they appear; if left they are sometimes very hard to get out. After this hammering should the metal become hard it must be softened; this is done by annealing, after which all slight buckles can be removed.

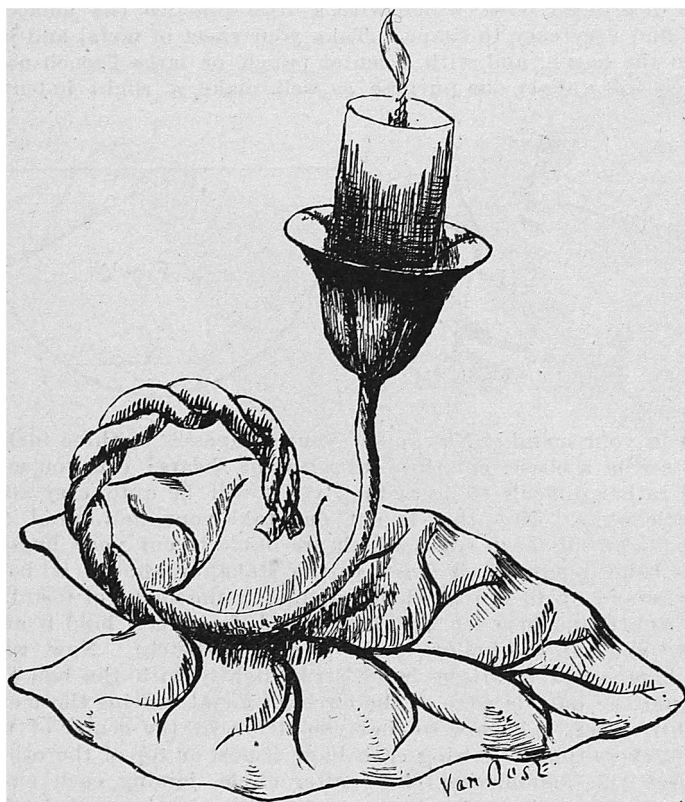
Annealing is effected by placing the metal in an open bed of fire till it is a cherry red, and then removing it with a pair of tongs or pliers, being very careful you do not break it as annealing oxidizes and softens the metal. This annealing will have to be often repeated as the hammer blows harden the metal and cause brittleness; the annealing removes the brittleness and restores the metal to its original softness.

When the bowl is worked up like the sketch (Fig. II), or to



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suit your own ideas, the bottom must be worked in (see dotted lines) for it to stand upon. This is accomplished by scribing a circle on the inside of the bowl by placing one of the arms of the dividers in the punch mark that was previously made. Now, with a tracing tool (see tools), which is much like a chisel whose edge has been made like a screw-driver, go round this circle tapping it with the hammer as you pass it slowly round making a perfect line. Do this so perfectly that no one can tell when the tool was taken up. Repeat this several times as it will enable the bottom to turn freer. This tracing is done on the hollow of the block, holding the tracer between the thumb and forefinger and steadying the bowl by resting the hand upon its edge. Now, to turn the bottom in, place the bowl upside down on the bench, and with the ball end of your hammer strike the center



of the circle, the lines of which show through. Should the sides give way knock the bottom back again and trace it once more, and repeat the former tapping it gently all round the inside of the circle till you have a perfect shape that will stand square and firmly on the table. The decoration of these bowls I will treat later on.

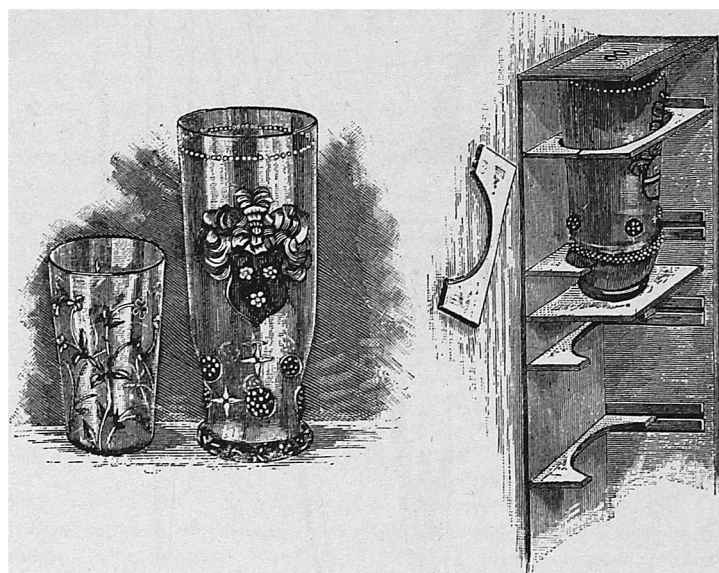
Having had this practice we will make something which we can finish, a little candlestick which takes the form of a conventionalized convolvulus stem, leaf and flower, the latter is the receptacle for the candle, the stem for the handle, and the leaf for the foundation and stand. (See finished sketch.) It is necessary before proceeding further to explain a little about Foxing as some term it. Now, it is quite evident when a flat article is to be chased it must be solidly backed up by some plastic material which will give to the tool while hammering, and at the same time possess an adhesive power that will make the metal and itself one solid yet impressionable mass; by the trade pitch is used toned down by plaster of Paris and a little oil or turpentine; but this does not meet the requirements of lady amateurs as it causes great annoyance by its splitting off and adhering to the hands and clothes. To avoid this I give a composition which will prevent this unpleasantness. To make this cement take 1 lb. of yellow beeswax, 3 lbs. of plaster of Paris, 2 lbs. of Burgundy pitch, and half an oz. of lard. Should the composition be at all brittle, use a little more lard or wax as it varies in summer and winter. This composition while warm is laid on a block of wood or iron which should rest on a ring of leather or straw, the article to be embossed is then warmed and pressed into it. Now to proceed with the candlestick; trace the leaf onto a piece of metal; this is done with colored transfer paper which can be purchased at any art material store. Should you care to make this paper yourself, which is very simple, take a little lampblack and mix it into a thick paste with castor oil; rub this over one side of tissue or news paper, gently wiping away all surplus grease with a rag. Place this greasy side on your metal, on top of this put the design; now go over the lines of the leaf with a hard lead pencil, carefully tracing the pattern. Too great care cannot be exercised in this tracing, as it is harder to trace than to draw. We will now proceed to work up the pattern; this is done with the tracer, or bordering tool as it is sometimes called. Place the edge of the tool on the middle vein of the leaf; tap this gently and rapidly with the hammer, guiding it slowly along at every stroke. Repeat this several times till

you have made quite a deep line; next treat the other lines in a similar manner. When these have all been gone over warm the metal and take it off the cement and anneal it, after which, with your shears, cut it out. We will now form the flower which is the nozzle to receive the candle. (See sketch Fig. III.) Scribe a circle of an inch radius, place this on your block and proceed as with the bowl before mentioned. When this is a little like the shape place it in your bed of cement, and strike the center repeatedly with the ball end of the hammer until it is of sufficient depth to hold the candle. Now, by looking at the design you will see that the edge of the flower is turned out or droops over. This is done by placing the rim on the edge of your block or stake and striking it out round the edge. When this is done place it in your cement again, and outline the leaves with the tracer; next punch a small hole in the center; this is to receive one-eighth of an inch brass wire which is to be soldered on, and at the same time solder the stem to the leaf.

(To be continued.)

ENAMELLED GLASS PAINTING.

ENAMEL glass painting is both nice and remunerative work, and with a little skill charming effects may thereby be attained. Enamel painting is best suited for ornamenting colored glass: it can also be done on plain white glasses, bottles, etc., only the artist must make sure that the glass has previously been tempered, so as to bear the heat of a second firing in the kiln. The painting is done as follows: First draw the outlines of the design with a fine brush, in Chinese white; should the worker prefer to trace it through, the pattern must be drawn on strong white paper and firmly stuck to the glass with bits of wax. When the outlines are thoroughly dry the whole painting must be coated with white enamel paint, which has been well mixed with a few drops of turpentine oil, by a glass rubber, on a glass palette. The mixture should be clear and about as thick as cream, above all it must be very smooth, *every little grain rubbed down*, and as it soon dries, only a small quantity at a time should be prepared. Enamel colors must be laid on thick, and as evenly as possible. For this purpose it is advisable *to work with a full brush and only go once over each surface*. If irregularities remain after an extra large surface has been painted, they can be scratched out with a very light hand. A pointed instrument may also be used to remove little blisters. The glass must be held horizontally whilst drying, and slightly turned from side to side to prevent the color running over the outlines. This first coating process being completed, the glass may be fired ready for further painting. This is made easier by tracing the intended design with pencil and black transfer paper on the enamel coating. All the shadows are afterwards painted with glass color black, which must be thinned with turpentine, but not be too dark, otherwise it will look muddy after firing. Should the worker have a kiln near, she will find it a great help to have the glass again fired at this stage; not that this intermediate firing is positively necessary, for the glass may also be



placed near the fire, or in the rays of the sun to dry for 3 or 4 days. The quicker this takes place and the more seldom the colors are retouched, the more successful is the painting which must at last be again well fired. The enamel colors are sold in papers in most artists' repositories. The brush must be dipped in a mixture of turpentine oil, spirit and clove oil, and turned about till finely pointed. The colors are put on more or less thickly according to their sought after shade and darkness, but *never too thickly* or they will show cracks in firing. *Nor must the brush contain too much oil*, as too much oil invariably pro-